

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (cancelled)

17. (amended) A barbed suture and for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein

the suture comprises a plurality of barbs projecting from an elongated body having a first end and a second end and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, and the barbs are in a twist cut multiple spiral disposition and the barbed suture is made from a suture filament having a portion that is twisted from about 2 to about 15 times per inch when the barbs are escarped into the suture filament to make the barbed suture, and

the surgical needle has a diameter at the needle's thickest part with a ratio of the surgical needle diameter to the barbed suture diameter of about 3:1 or less.

18. (previously presented). A barbed suture and for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein

the suture comprises a plurality of barbs projecting from an elongated body having a first end and a second end and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, and the barbs are in a twist cut multiple spiral disposition and the suture has a spiraled angle α ranging from about 5 degrees to about

25 degrees, and

the surgical needle has a diameter at the needle's thickest part with a ratio of the surgical needle diameter to the barbed suture diameter of about 3:1 or less.

19. (original) The barbed suture and surgical needle combination according to claim 18, wherein the spiraled angle α ranges from about 7 degrees to about 22 degrees.

20. (original) The barbed suture and surgical needle combination according to claim 19, wherein the spiraled angle α ranges from about 12 degrees to about 18 degrees.

34. (original) A barbed suture for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein the suture comprises a plurality of barbs projecting from an elongated body having a first end, a second end, and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, wherein the barbs are in a twist cut multiple spiral disposition and the suture has a spiraled angle α ranging from about 5 degrees to about 25 degrees, and wherein the surgical needle has a diameter with a ratio of the surgical needle diameter to the barbed suture diameter of about 3:1 or less.

55. (previously presented) The barbed suture and surgical needle combination according to claim 17, wherein the suture is made from a material selected from the group consisting of a bio-absorbable material, a non-absorbable material, and combinations thereof.

56. (previously presented) The barbed suture and surgical needle combination according to claim 55, wherein the bio-absorbable material is selected from the group consisting of polydioxanone, polylactide, polyglycolide, polycaprolactone, and combinations thereof.

57. (previously presented) The barbed suture and surgical needle combination according to

claim 55, wherein the non-absorbable material is selected from the group consisting of a polymer, a metal, a metal alloy, a natural fiber, and combinations thereof.

58. (previously presented) The barbed suture and surgical needle combination according to claim 57, wherein the polymer is selected from the group consisting of polyamide, polyester, polypropylene, polyurethane, polytetrafluoroethylene, polyether-ester, and combinations thereof.

59. (previously presented) The barbed suture and surgical needle combination according to claim 17, wherein the barbs are all facing in a direction toward only one of the first end and the second end.

60. (previously presented) The barbed suture and surgical needle combination according to claim 17, wherein the barbed suture has at least a first barbed portion and a second barbed portion, wherein the barbs of the first portion are facing in a direction toward only the first end and the barbs of the second portion are facing in a direction toward only the second end.

61. (previously presented) The barbed suture and surgical needle combination according to claim 18, wherein the suture is made from a material selected from the group consisting of a bio-absorbable material, a non-absorbable material, and combinations thereof.

62. (previously presented) The barbed suture and surgical needle combination according to claim 61, wherein the bio-absorbable material is selected from the group consisting of polydioxanone, polylactide, polyglycolide, polycaprolactone, and combinations thereof.

63. (previously presented) The barbed suture and surgical needle combination according to claim 61, wherein the non-absorbable material is selected from the group consisting of a polymer, a metal, a metal alloy, a natural fiber, and combinations thereof.

64. (previously presented) The barbed suture and surgical needle combination according to claim 63, wherein the polymer is selected from the group consisting of polyamide, polyester,

polypropylene, polyurethane, polytetrafluoroethylene, polyether-ester, and combinations thereof.

65. (previously presented) The barbed suture and surgical needle combination according to claim 18, wherein the barbs are all facing in a direction toward only one of the first end and the second end.

66. (previously presented) The barbed suture and surgical needle combination according to claim 18, wherein the barbed suture has at least a first barbed portion and a second barbed portion, wherein the barbs of the first portion are facing in a direction toward only the first end and the barbs of the second portion are facing in a direction toward only the second end.

79. (previously presented) The barbed suture and surgical needle combination according to claim 34, wherein the suture is made from a material selected from the group consisting of a bio-absorbable material, a non-absorbable material, and combinations thereof.

80. (previously presented) The barbed suture and surgical needle combination according to claim 79, wherein the bio-absorbable material is selected from the group consisting of polydioxanone, polylactide, polyglycolide, polycaprolactone, and combinations thereof.

81. (previously presented) The barbed suture and surgical needle combination according to claim 79, wherein the non-absorbable material is selected from the group consisting of a polymer, a metal, a metal alloy, a natural fiber, and combinations thereof.

82. (previously presented) The barbed suture and surgical needle combination according to claim 81, wherein the polymer is selected from the group consisting of polyamide, polyester, polypropylene, polyurethane, polytetrafluoroethylene, polyether-ester, and combinations thereof.

83. (previously presented) The barbed suture and surgical needle combination according to claim 34, wherein the barbs are all facing in a direction toward only one of the first end and the second end.

84. (previously presented) The barbed suture and surgical needle combination according to claim 34, wherein the barbed suture has at least a first barbed portion and a second barbed portion, wherein the barbs of the first portion are facing in a direction toward only the first end and the barbs of the second portion are facing in a direction toward only the second end.

141. (new) A barbed suture and for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein

the suture comprises a plurality of barbs projecting from an elongated body having a first end and a second end and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, and the barbs are in a twist cut multiple spiral disposition, and

the surgical needle has a diameter at the needle's thickest part with a ratio of the surgical needle diameter to the barbed suture diameter ranging from about 3:1 to about 1.47:1.

142. (new) A barbed suture and for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein

the suture comprises a plurality of barbs projecting from an elongated body having a first end and a second end and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, and the barbs are in a twist cut multiple spiral disposition and the suture has a spiraled angle α ranging from about 5 degrees to about 25 degrees, and

the surgical needle has a diameter at the needle's thickest part with a ratio of the surgical needle diameter to the barbed suture diameter ranging from about 3:1 to about 1.47:1.

143. (new) A barbed suture for connecting human or animal tissue in combination with a surgical needle, said combination comprising a barbed suture attached to a surgical needle, wherein the suture comprises a plurality of barbs projecting from an elongated body having a first end, a second end, and a diameter, each barb facing in a direction and being adapted for resisting movement of the suture, when in tissue, in an opposite direction from the direction in which the barb faces, wherein the barbs are in a twist cut multiple spiral disposition and the suture has a spiraled angle α ranging from about 5 degrees to about 25 degrees, and wherein the surgical needle has a diameter with a ratio of the surgical needle diameter to the barbed suture diameter ranging from about 3:1 to about 1.47:1.

144.(new) The barbed suture and surgical needle combination according to claim 17, wherein the elongated body has a circular cross section.

145.(new) The barbed suture and surgical needle combination according to claim 17, wherein the elongated body has a non-circular cross section.

146.(new) The barbed suture and surgical needle combination according to claim 145, wherein the non-circular cross section has a shape selected from the group consisting of oval, triangle, square, parallepiped, trapezoid, rhomboid, pentagon, hexagon, cruciform, and combinations thereof.

147.(new) The barbed suture and surgical needle combination according to claim 18, wherein the elongated body has a circular cross section.

148.(new) The barbed suture and surgical needle combination according to claim 18, wherein the elongated body has a non-circular cross section.

149.(new) The barbed suture and surgical needle combination according to claim 148, wherein the non-circular cross section has a shape selected from the group consisting of oval, triangle, square, parallepiped, trapezoid, rhomboid, pentagon, hexagon, cruciform, and combinations thereof.

150.(new) The barbed suture and surgical needle combination according to claim 34, wherein the elongated body has a circular cross section.

151.(new) The barbed suture and surgical needle combination according to claim 34, wherein the elongated body has a non-circular cross section.

152.(new) The barbed suture and surgical needle combination according to claim 151, wherein the non-circular cross section has a shape selected from the group consisting of oval, triangle, square, parallepiped, trapezoid, rhomboid, pentagon, hexagon, cruciform, and combinations thereof.